Bluish-fronted Jacamar *Galbula cyanescens* in Ecuador

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Bluish-fronted Jacamar *Galbula cyanescens* occurs south of the Amazon River from northern Peru and western Brazil south to northern Bolivia (Tobias *et al.* 2002). Its taxonomic status has been controversial, being treated as a subspecies of White-chinned Jacamar *G. tombacea* by some authors (Pinto 1938), and evidence for species rank is rather weak (Remsen *et al.* 2014): plumage differences between the two are subtle and their ranges are apparently mutually exclusive (Tobias *et al.* 2002, Schulenberg *et al.* 2010). *G. cyanescens* has sometimes been treated as part of the Ecuadorian avifauna on the basis of a 19th-century specimen taken in the Zamora area (Haffer 1974). However, Ridgely & Greenfield (2001) suggested that this specimen probably involved a Coppery-chested Jacamar *G. pastazae*, the only jacamar known to occur near Zamora.

Here we report recent field observations of *G. cyanescens* in the Nangaritza Valley of south-east Ecuador (Freile *et al.* 2013), along with the rediscovery and re-examination of the Zamora specimen. These records represent firm evidence of its occurrence in Ecuador. The species was previously thought to occur only south of the Marañón River (Tobias *et al.* 2002, Schulenberg *et al.* 2010).

Field observations

On 3 January 2013, DMB, GL, DL & NJA heard a *Galbula* jacamar calling from forest edge *c.*2 km west of Paquisha, prov. Zamora-Chinchipe (03°56′23″S, 78°41′35″W). DMB initially assumed it was a *G. pastazae*, a species regularly recorded in the foothills of eastern Ecuador. However, once the bird was in view several plumage characters were noted that did not match this species. It had a pale orange rather than rufous belly and lacked the yellow orbital ring of *G. pastazae*. DMB realised it must be a female *G. tombacea* or *G. cyanescens*. Neither species was expected at the site. Schulenberg *et al.* (2010) was consulted in the field. After playback of pre-recorded calls of *G. cyanescens* a male flew in and it became clear that the birds were paired. Both individuals had an iridescent bluish-green forehead, a field mark indicative of *G. cyanescens* (Schulenberg *et al.* 2010). GL & DMB obtained photographs (Fig. 1).

Subsequent observations at the same locality suggested that the birds were territorial. DMB, GL & DL observed the male on 6 January 2013. DMB, J. Nilsson & F. Witebsky returned on 28 July 2013 and obtained brief views of the pair. R. Ahlman photographed the female on 6 December 2013 and again observed the pair on 27 December. C. Vogt observed the pair on 2 February 2014. During all observations, the pair showed territorial behaviour by responding vocally to playback. Habitat at the site consisted of humid secondary forest at *c.*1,000 m elevation along a dirt road bordering extensive pastures, while a roadside bank may have provided a nest site, although no hole was found. The identification has been accepted by the Committee of Ecuadorian Records in Ornithology (CERO; Freile *et al.* 2013).

Identification.—*G. cyanescens* is very similar to *G. tombacea*. Plumage differences are subtle and their vocalisations are effectively indistinguishable (Schulenberg *et al.* 2010). The main (and perhaps only) difference between them is the colour of the head. *G. cyanescens* has an iridescent bluish-green crown, which is often more bluish on the forehead. In contrast, *G.*

Figure 1. Male and female Bluish-fronted Jacamar *Galbula cyanescens*, near Paquisha, Zamora-Chinchipe, Ecuador, 3 January 2013 (G. Lambeth)

Figure 2. Specimen no. 217 of Bluish-fronted Jacamar *Galbula cyanescens* collected by E. Festa in the Zamora region, south-east Ecuador, and deposited in the Turin museum (G. Soldato)

tombacea has a dull greyish-brown forehead and face (Ridgely & Greenfield 2001, Tobias *et al.* 2002, Schulenberg *et al.* 2010). *G. pastazae* also has a bluish-green crown, but is larger and both sexes possess a distinct yellow orbital ring. In addition, female *G. pastazae* has a large rufous throat patch (Ridgely & Greenfield 2001, Tobias *et al.* 2002, Schulenberg *et al.* 2010).

The habitat and location also support *G. cyanescens* rather than *G. tombacea*. *G. cyanescens* occurs in a variety of habitats, including secondary forest and edges, and its range penetrates the foothills of the Andes (Tobias *et al.* 2002, Schulenberg *et al.* 2010). In Ecuador, *G. tombacea* is known solely from the northern lowlands away from the Andes, usually along streams in *várzea* forest (Ridgely & Greenfield 2001).

Festa's specimen

In 1895–96, Enrico Festa collected a *Galbula* in the Zamora area, but did not provide a precise locality (Salvadori & Festa 1900). Festa's specimen no. 217 was later checked by Salvadori, who identified it as *G. tombacea* (Salvadori & Festa 1900). However, he stated that the specimen notably differed from other *G. tombacea* specimens in Turin museum and that it actually matched the description of *G. fuscicapilla* (Sclater 1855), a form by then synonymised with nominate *G. tombacea* (Sclater 1882). Differences included larger size, golden-green crown and upperparts, and no blue tone below the brownish chin.

The specimen was recently relocated by GS in the Turin museum (Fig. 2). Although rather damaged, examination revealed a distinctive bluish-green crown and a faint, dull whitish chin. Forehead and crown are dull greyish brown in *G. tombacea* (both sexes), whereas *G. pastazae* has a bluish chin and throat (male) or a large rufous throat (female: Ridgely & Greenfield 2001, Schulenberg *et al.* 2010). The bill was shorter (40.5 mm) than the only *G. pastazae* in Turin (49.1 mm), and of three specimens at Museo Ecuatoriano de Ciencias Naturales, Quito (45.2–46.3 mm; mean 45.6 mm).

Discussion

Haffer (1974) re-identified the Zamora specimen as *G. cyanescens* based on Salvadori & Festa's (1900) description of a golden-green crown, but did not indicate whether he had examined the specimen himself. Due to the unclear whereabouts of the specimen, Ridgely & Greenfield (2001) were unable to test Haffer's assumption and suggested that it probably involved a *G. pastazae*, given that it is the only *Galbula* known from the Zamora area and this species also has a green crown.

Chapman (1926) was probably unaware of the specimen, despite having apparently seen Salvadori & Festa (1900) and even Festa's collecting itineraries. Although Haffer (1974) had already re-identified the specimen as *G. cyanescens*, the latter species was omitted from subsequent lists of Ecuadorian birds (Butler 1979, Ortiz-Crespo *et al.* 1990, Ridgely *et al.* 1998).

G. cyanescens and *G. tombacea* form a superspecies with Green-tailed Jacamar *G. galbula*, Rufous-tailed Jacamar *G. ruficauda* and Coppery-chested Jacamar, and are probably close relatives (Tobias *et al.* 2002, Remsen *et al.* 2014). Their geographical distributions are largely separated by the Amazon, but intermediate specimens have been reported from the Javari River, just south of the Amazon near the Colombia / Peru / Brazil border (Sclater 1857, 1882) and, besides the Ecuadorian records, *G. cyanescens* has been reported at two sites north of the Amazon, both in Colombia: Nauta (Haffer 1974) and near Leticia (Beckers & Flores 2013). Whether *G. cyanescens* and *G. tombacea* are in contact requires confirmation, but if they meet without interbreeding it would strengthen their status as separate species.

As both Ecuadorian records of *G. cyanescens* are from the south-eastern foothills, and *G. tombacea* is confined to *várzea* forests below 400 m, it is unlikely that they overlap in southern Ecuador. However, further data are required on the ranges of both species in the Pastaza and Santiago drainages, which remain poorly explored ornithologically (Freile *et al.* 2006).

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References:
Beckers, J. & Flores, P. 2013. *Birdwatching in Colombia*. Privately published.
Butler, T. Y. 1979. *The birds of Ecuador and the Galápagos archipelago*. Ramphastos, Portsmouth.
Chapman, F. M. 1926. The distribution of bird-life in Ecuador. *Bull. Amer. Mus. Nat. Hist.* 55: 1–784.
Freile, J. F., Carrión, J. M., Prieto-Albuja, F., Suárez, L. & Ortiz-Crespo, F. 2006. La ornitología en Ecuador: un análisis del estado actual del conocimiento y sugerencias para prioridades de investigación. *Orn. Neotrop.* 17: 183–202.
Freile, J. F., Ahlman, R., Brinkuizen, D. M., Greenfield, P. J., Solano-Ugalde, A., Navarrete, L. & Ridgely, R. S. 2013. Rare birds in Ecuador: first annual report of the Committee of Ecuadorian Records in Ornithology (CERO). *Avances en Ciencias e Ingenierías* 5: B24–B41.
Haffer, J. 1974. *Avian speciation in tropical South America*. Publ. Nuttall Orn. Cl. 14. Nuttall Orn. Cl., Cambridge, MA.
McMullan, M., Donegan, T. M. & Quevedo, A. 2010. *Field guide to the birds of Colombia*. Fundación Proaves, Bogotá.
Ortiz-Crespo, F., Greenfield, P. & Matheus, J. C. 1990. *Aves del Ecuador, continente y archipiélago de Galápagos*. Feprotur, Quito.
Pinto, O. M. O. 1938. Catálago das aves do Brasil. 1ª parte. *Rev. Mus. Paulista* 22: 1–566.
Remsen, J. V., Cadena, C. D., Jaramillo, A., Nores, M., Pacheco, J. F., Pérez-Emán, J., Robbins, M. B., Stiles, F. G., Stotz, D. F. & Zimmer, K. J. 2014. A classification of the bird species of South America. www.museum.lsu.edu/~Remsen/SACCBaseline.html (accessed 9 June 2014)
Ridgely, R. S. & Greenfield, P. J. 2001. *The birds of Ecuador*, 2 vols. Cornell Univ. Press, Ithaca, NY.
Ridgely, R. S., Greenfield, P. J. & Guerrero, M. 1998. *Una lista anotada de las aves del Ecuador continental*. Corporación Ornitológica del Ecuador, Quito.
Salvadori, T. & Festa, E. 1900. Viaggio del Dr. Enrico Festa nell'Ecuador. Xxii. Uccelli. Parte terza - Trochili-Tinami. *Bol. Mus. Zool. Anat. Comp. Univ. Torino* 15: 1–54.
Schulenberg, T. S., Stotz, D. F., Lane, D. F., O'Neill, J. P. & Parker, T. A. 2010. *Birds of Peru*. Revised edn. Princeton Univ. Press.
Sclater, P. L. 1855. List of a collection of birds received from Mr. Gould from the province of Quijos, in the Republic of Ecuador. *Proc. Zool. Soc. Lond.* 1855: 109–115.
Sclater, P. L. 1857. On a collection of birds transmitted by Mr. H. W. Bates from the upper Amazon. *Proc. Zool. Soc. Lond.* 1857: 261–268.
Sclater, P. L. 1882. *A monograph of the jacamars and puffbirds*. R. H. Porter, London.
Tobias, J. A., Züchner, T. & Melo-Júnior, T. A. 2002. Family Galbulidae (jacamars). Pp. 74–101 *in* del Hoyo, J., Elliott, A. & Sargatal, J. (eds.) *Handbook of the birds of the world*, vol. 7. Lynx Edicions, Barcelona.

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